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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/591,401

11/01/2006

Gilbert Legeay

0510-1148

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466 7590 06/09/2008

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EXAMINER

PURDY, KYLE A

ART UNIT

PAPER NUMBER

1611

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DELIVERY MODE

06/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/591,401 | Applicant(s) LEGEAY ET AL. | |
| | Examiner Kyle Purdy | Art Unit 1611 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/14/2007 and 04/14/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1 sheet (09/12/2007)</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election Acknowledged

1. Applicants' election without traverse the invention of Group I encompassing claims 1-10 is acknowledged. The restriction is made final without traverse. Therefore, the restriction requirement is deemed to be proper and made final.

Status of Application

2. Claims 1-10 are pending, claims 11-13 have been cancelled and claims 1-10 are presented for examination on the merits. The following rejections are made.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claim 4, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

6. Regarding claims 5, it is unclear what is surface is meant by the recitation of 'a soil', 'a reactor', and a 'still of tubing'. It is unclear as to what these surfaces are meant to encompass? As claimed, these surfaces do not give one of skill in the art sufficient clarity so as to understand the invention and understand whether making and using his/her method of disinfecting dirt, an

engine or a tube would infringe on the present invention. If retained, the aforementioned surfaces should themselves contain modifiers so as to particularly point out and distinctly claim the invention.

7. Regarding claim 5, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(c).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Braun (EP 0194770; of record).

10. Braun is drawn to disinfectant polymeric coatings and methods of using said solutions on hard surface. Example 7 exemplifies such a method. Example 7 discloses applying a film-forming liquid disinfectant solution with a hydrophilic polymer that consists of cyclohexylmethacrylate, isodecyl methacrylate and 2-hydroxyethyl methacrylate (see instant claims 1 and 7) to a glazed and unglazed ceramic tile (see instant claim 3). After application of the polymeric disinfectant solution it was then allowed to dry (see instant claim 1). The hydrophilic copolymer is taught to be contained in the formulation at a weight percentage of 4.9% (see instant claim 6).

11. It should be noted that the requirement of applying the solution to a 'surface at least 0.1m²' carries no patentable weight because it occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the intended use of a process, and where the body of the claim does not depend on the preamble for completeness but, instead depends on the process steps or structural limitations.

12. Thus, Braun anticipates the instantly rejected claims.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braun (EP 0194770; of record) in view of Stovicek (US 4990547; of record).

15. Braun is relied upon for disclosure described in the rejection of claims 1, 3, 6 and 7 under 35 U.S.C. 102(b).

16. As discussed above, Braun is drawn to using disinfectant polymeric solutions on hard surfaces. Exemplified hard surfaces include ceramics, glass, formica, plastics and metals (see page 2, lines 5-10; see instant claims 2-5).

17. Braun fails to teach the composition of the method as further comprising silica particles at a concentration of from 50 g/L to 250 g/L.

18. The teaching of Stovicek cures such a deficiency. Stovicek is drawn to antifouling compositions, useful for coating fish netting, boat hulls, roof shingles and so on to prevent growth of algae or fungi (see abstract). Specifically, the composition is in the form of an emulsion which comprises hydrophilic polymers ethylvinylacetate (EVA) (see Examples 9 and 10). The composition is taught to comprise up to 20% by weight of filler. Exemplary fillers include calcium carbonate and silica (see column 2, line 30). Specifically, Examples 9 and 10 include silica in the composition at weight percentages of 10% and 20% respectively.

19. Thus, it would have been obvious to one of ordinary skill in the art to combine the teachings of Braun and Stovicek with a reasonable expectation for success in arriving at the instantly claimed method of applying a solution of a hydrophilic polymeric material to a mineral surface followed by drying. With respect to the requirement of the instant claims that the application of the polymeric solution be applied to the surface via brush, roll, or spraying device, such processes are considered obvious. Albeit Braun does not specifically disclose how the solution was applied to the tiles of Example 7 (see above), such methods of application would have been well within the purview to one ordinarily skilled in the art. Braun fails to teach the disinfectant solution as comprising silica. Stovicek cures this deficiency. Stovicek teaches that their disinfectant solution may comprise up to 20% by weight of filler wherein the filler can be that of silica (see Examples 9 and 10). As the instantly claimed silica weight percentage is from 50 g/L to 250 g/L (corresponds to 0.5% to 25% by weight), the weight percentages disclosed by Stovicek would obviate including silica at the instantly claimed weight percentages. Further, Stovicek teaches that their polymeric composition can be applied to surfaces via spraying (see Example 12). It should be noted that the requirement of applying the solution to a 'surface at

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least 0.1m^2 , in claim 1 carries no patentable weight because it occurs in the preamble (see above). Still however, one of ordinary skill would be capable of identifying a surface area capable of requiring disinfection. If this resulted in a surface with an area of at least 0.1 m^2 then such a result is obvious and would not have been a product of innovation, but rather one of common sense and ordinary skill. Therefore, the invention as a whole is *prima facie* obvious to one ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in absence of evidence to the contrary.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle A. Purdy whose telephone number is 571-270-3504. The examiner can normally be reached from 9AM to 5PM.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

/Kyle Purdy/
Examiner, Art Unit 1611
May 26, 2008

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615